UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/525,874 | 02/25/2005 | Hirokazu Koizumi | Q86537 | 2052 |

23373 7590 07/16/2009
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

| EXAMINER | |
|---|---|
| FUJITA, KATRINA R | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2624 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 07/16/2009 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Attachment to Advisory Action Paper No. 20090708

1. For purposes of appeal, the proposed remarks will be entered and the proposed rejection(s) detailed below will be included in the Examiner's Answer. To be complete, such rejection(s) must be addressed in any brief on appeal.

Upon entry of the amendment(s) for purposes of appeal:

Claim(s) 1-32, 34-65, 67 and 68 would be rejected for the reasons set forth in the rejections under U.S.C. § 102(b) based upon Crabtree et al. of the final Office action mailed March 27, 2009.

***Corrected Filing Receipt***

2. The request for Corrected Filing Receipt was received on October 11, 2005. The correction is currently pending.

***Response to Arguments***

Summary of Remarks (@ response page labeled 3): The Crabtree reference only generates at least one real-world feature and does not synthesize the real world features.

Examiner's Response: The Crabtree reference, as Applicant points out, generates at least one real-world feature. However, each real-world feature, whether it is the location of the cluster, height, or width is generated by the synthesis of measurements regarding the object clusters from the image information (characteristic quantities of respective objects in said image information). Take, for instance, the generation of the real-world x-coordinate as seen in column 18, line 7, where the coordinate is found by the distance from the camera to the person's head, x distance from the image center to the person's feet, the horizontal viewing angle through the lens and the width of the image.

Summary of Remarks (@ response page labeled 4): "Crabtree fails to disclose that the statistical information of the feature model is representative of the characteristic quantities of respective objects included in said image information".

Examiner's Response: The statistical information (height, width, coordinates) is the result of synthesis of the measurements regarding the object clusters from the image information, such as the angle between the person's head and feet (column 17, line 51), the distance from the person's head to the camera (col. 17, line 63) or the x distance from the image center to the person's feet (col. 18, line 3).

Summary of Remarks (@ response page labeled 6): Crabtree does not disclose "comparing the confidence scores and the feature model information to establish correspondence information between object zones and objects".

Examiner's Response: The Examiner is gathering from Applicant's response that the intended language of the correspondence-establishing means in claim 1 is to read as establishing correspondences between an object zone and an object based on the similarity between the object zone's characteristic quantities and the object's synthesized characteristic quantities. However, the Examiner interpreted the claim as follows: establishing correspondences between object zones and correspondences between objects based on the similarity between object zone characteristic quantities and the similarity between synthesized object characteristic quantities. As such, correspondence between object zones are defined by the confidence scores that the object zone in the current frame defined by its object belongs to an object zone in the previous frame. The correspondence between objects is defined by the real-world features for each cluster to determine whether each cluster belongs to the same object in the current frame or whether an object in the current frame corresponds to an object in the previous frame.

Summary of Remarks (@ response pages labeled 6-7): The model matcher receives object model information from the OCGM, and as such, feature model information is not generated by the model matcher.

Examiner's Response: The Examiner was not relying on the "object model information" from the OCGM as support for the synthetic characteristic quantities. The "feature model information" is referring to the real-world features as calculated by the model matcher.

Summary of Remarks (@ response page labeled 7): "Individual region clusters contain only one object, such as region clusters 302 and 306".

Examiner's Response: The Examiner recognizes that region cluster 302 and 306 correspond to individual objects. However, a region cluster does not necessarily have only one object, as merged objects will form a single region cluster (col. 28, line 33).

Summary of Remarks (@ response page labeled 8): "Since an object zone is defined by an object within it, according to the Examiner, Applicant submits that objects 302 and 306 are within their own object zones, respectively. Therefore, according to the Examiner's interpretation of an object and object zone, a split transition leads to only one object zone and an object within it".

Examiner's Response: The Examiner did state that "an object zone is defined by the object within it". However, this does not preclude an object zone from containing more than one object in it. The object zone is essentially the region cluster as defined

by the object, or some cases, objects. As stated above, in the instances where two objects merge to form a single cluster, the object zone contains two objects, rather than just one. Therefore, a split transition will result in two object zones as the two objects split from their merged state.

***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KATRINA FUJITA whose telephone number is (571)270-1574. The examiner can normally be reached on M-Th 8-5:30pm, F 8-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on (571) 272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Katrina Fujita/
Examiner, Art Unit 2624

/Brian P. Werner/
Supervisory Patent Examiner, Art Unit 2624